

*Amended
sub,
cancel.*

wherein one of the inner races of the two ball bearings is pushed with a spring toward the other ball bearing.--

REMARKS

Claims 3 and 4 are pending. By this Amendment, claims 1 and 2 are canceled without prejudice or disclaimer, and claims 3 and 4 are added. Reconsideration based on the above amendments and following remarks is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance (for the reasons discussed herein); (b) do not raise any new issue requiring further search and/or consideration (since the amendments amplify issues previously discussed throughout prosecution); (c) satisfy a requirement of form asserted in the previous Office Action; (d) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (e) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

I. The Claims Satisfy the Requirements of
35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 1 and 2 under 35 U.S.C. §112, second paragraph, as indefinite. Claims 1 and 2 are canceled without prejudice or disclaimer, and claims 3 and 4 are added, which satisfy all formal requirements. Withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

II. The Claims Define Allowable Subject Matter

The Office Action rejects claims 1 and 2 under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 5,274,289 to Wrobel (hereinafter "Wrobel") in view of U.S. Patent No. 6,010,247 to Mouri et al. (hereinafter "Mouri"). The rejection is respectfully traversed.

Claims 1 and 2 are canceled without prejudice or disclaimer, and claims 3 and 4 are added. Thus, this rejection is traversed with regard to new claims 3 and 4.

In accordance with the claimed invention, two ball bearings 8, 9 are inserted into a bearing box 7b from the right-hand side in such a manner that the side face of outer races 8a, 9a of the two ball bearings 8, 9 are abutted (Fig. 2). On the other hand, inner races 8b, 9b of the two ball bearings 8, 9 are provided with a certain gap therebetween (Fig. 2). A Belleville spring 14 is provided so as to provide a certain pressurization to the inner race 8b of the ball bearing 8. In this ball bearing, the inner races of the two ball bearings can be adjusted not only in an axial direction ("displacement created in relation to a gap which is formed between a side face of the inner races", as claimed in new claims 3 and 4) but also in a radius direction ("displacement created between the outer surface of the shaft and the inner surface of the inner race abutting the outer surface of the shaft", as claimed in new claims 3 and 4) enhancing the coaxiality of the ball bearings 8, 9.

Contrarily, Mouri discloses two ball bearings 12, 13 provided with inner races 12a, 13a that are smaller than widths of outer races 12b, 13b. In Mouri, each of the outer races 12b and 13b are brought into contact with each other and fixed to an inner surface of a sleeve body 14a with adhesives. The inner race 12a is fixed to a shaft 9 with adhesives, while the inner race 13a is fitted around the shaft 9 to be slidable. Then, a pre-pressure from the direction indicated by the arrow B (Fig. 1) is applied to the outer end of the inner race 13a. Under this condition, the inner race 13a is fixed to the shaft 9 with adhesives, whereby the bearing device 10 may obviate the generation of the axial displacement.

The Office Action appears to assert that the invention and Mouri disclose ball bearings having a similar construction. However, Mouri discloses that the pre-pressure is applied to the inner race 13a when fixing to the shaft 9 with adhesives. This means that the

inner race 13a can only be adjusted in an axial direction, and not in a radius direction, which is different from the claimed invention.

Further, Wrobel does not disclose this feature.

For at least these reasons, it is respectfully submitted that claims 3 and 4 distinguish over the applied art. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

III. Conclusion

For at least these reasons, it is respectfully submitted that this application is in condition for allowance.

Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Eric D. Morehouse
Registration No. 38,565

JAO:EDM/gam

Attachment:
Petition for Extension of Time

Date: March 15, 2002

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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